SEQUENCE LISTING

<110> Magna, Holly
Schaffer, Paul
Lawton, Michael
Yocum, Sue
Mitchell, Peter
Hutchinson, Nancy
Murry, Lynn E.

<120> HUMAN NUCLEOTIDE PYROPHOSPHOHYDROLASE-2

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<140> 08/996,083
<141> 1997-12-22

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Ala Leu Glu Asp Trp Glu Glu Ala Ser Glu Trp Thr Ser Trp Phe Asn
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Val Asp His Pro Gly Gly Asp Gly Asp Phe Glu Ser Leu Ala Ala Ile
65                  70                  75                  80
Arg Phe Tyr Tyr Gly Pro Ala Arg Val Cys Pro Arg Pro Leu Ala Leu
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Glu Ala Arg Thr Thr Asp Trp Ala Leu Pro Ser Ala Val Gly Glu Arg
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Val His Leu Asn Pro Thr Arg Gly Phe Trp Cys Leu Asn Arg Glu Gln
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Pro Arg Gly Arg Arg Cys Ser Asn Tyr His Val Arg Phe Arg Cys Pro
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Leu Glu Ala Ser Trp Gly Ala Trp Gly Pro Trp Gly Pro Cys Ser Gly
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Ser Cys Gly Pro Gly Arg Arg Leu Arg Arg Arg His Cys Pro Ser Pro
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Ala Gly Asp Ala Cys Pro Gly Arg Pro Leu Glu Ala Gln Lys Cys Val
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Arg Pro Arg Cys Pro Gly Cys Ser Leu Asp Thr Cys Glu Cys Pro Asp
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His Ile Leu Leu Gly Ser Val Val Thr Pro Ser Gly Gln Pro Leu Leu
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Ala Asn Ile Arg Ala Gln Met Asp Gly Phe Ser Ala Gly Glu Ala Gln
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Ala Gln Ala Asn Gly Ser Ile Ser Val Val Thr Ile Ile Leu Asp Lys
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Leu Glu Lys Pro Tyr Leu Val Lys His Pro Glu Ser Arg Val Arg Glu
    290                 295                 300
Ala Gly Gln Asn Val Thr Phe Cys Cys Lys Ala Ser Gly Thr Pro Met
305                 310                 315                 320
Pro Lys Lys Tyr Ser Trp Phe His Asn Gly Thr Leu Leu Asp Arg Arg
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Ala His Gly Tyr Gly Ala His Leu Glu Leu Arg Gly Leu Arg Pro Asp
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Gln Ala Gly Ile Tyr His Cys Lys Ala Trp Asn Glu Ala Gly Ala Val
        355                 360                 365
Arg Ser Gly Thr Ala Arg Leu Thr Val Leu Ala Pro Gly Gln Pro Ala
    370                 375                 380
Cys Asp Pro Arg Pro Arg Glu Tyr Leu Ile Lys Leu Pro Glu Asp Cys
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Gly Gln Pro Gly Ser Gly Pro Ala Tyr Leu Asp Val Gly Leu Cys Pro
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Asp Thr Arg Cys Pro Ser Leu Ala Gly Ser Ser Pro Arg Cys Gly Asp
            420                 425                 430
Ala Ser Ser Arg Cys Cys Ser Val Arg Arg Leu Glu Arg Arg Glu Ile
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His Cys Pro Gly Tyr Val Leu Pro Val Lys Val Val Ala Glu Cys Gly
    450                 455                 460
Cys Gln Lys Cys Leu Pro Pro Arg Gly Leu Val Arg Gly Arg Val Val
465                 470                 475                 480
Ala Ala Asp Ser Gly Glu Pro Leu Arg Phe Ala Arg Ile Leu Leu Gly
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Gln Glu Pro Ile Gly Phe Thr Ala Tyr Gln Gly Asp Phe Thr Ile Glu
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Val Pro Pro Ser Thr Gln Arg Leu Val Val Thr Phe Val Asp Pro Ser
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Ala Gly Val Tyr His Glu Val Lys Ala Met Arg Lys Lys Ala Pro Val
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Ile Leu His Thr Ser Gln Ser Asn Thr Ile Pro Leu Gly Glu Leu Glu
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Gln Val Gly Pro Val Ala Val Arg Val Ala Ala Ser Gln Ile His Met
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Cys Phe Val Lys Val Arg Ala Tyr Ala Asn Asp Lys Phe Thr Pro Ser
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Glu Gln Val Glu Gly Val Val Val Thr Leu Val Asn Leu Glu Pro Ala
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Pro Gly Phe Ser Ala Asn Pro Arg Ala Trp Gly Arg Phe Asp Ser Ala
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Val Thr Gly Pro Asn Gly Ala Cys Leu Pro Ala Phe Cys Asp Ala Asp
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Arg Pro Asp Ala Tyr Thr Ala Leu Val Thr Ala Thr Leu Gly Gly Glu
                805                 810                 815
Glu Leu Glu Pro Ala Pro Ser Leu Pro Arg Pro Leu Pro Ala Thr Val
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Gly Val Thr Gln Pro Tyr Leu Asp Arg Leu Gly Tyr Arg Arg Thr Asp
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Trp Arg Ser Leu Arg Glu Cys Gln Gly Ala Pro Val Thr Ala Ser His
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Phe Arg Phe Ala Arg Val Glu Ala Asp Lys Tyr Glu Tyr Asn Val Val
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Pro Phe Arg Glu Gly Thr Pro Ala Ser Trp Thr Gly Asp Leu Leu Ala
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Trp Trp Pro Asn Pro Gln Glu Phe Arg Ala Cys Phe Leu Lys Val Lys
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Thr Leu Glu Ser Pro Gly Glu Trp Thr Thr Trp Phe Asn Ile Asp Tyr
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Pro Gly Gly Lys Gly Asp Tyr Glu Arg Leu Asp Ala Ile Arg Phe Tyr
65                  70                  75                  80
Tyr Gly Asp Arg Val Cys Ala Arg Pro Leu Arg Leu Glu Ala Arg Thr
                85                  90                  95
Thr Asp Trp Thr Pro Ala Gly Ser Thr Gly Gln Val Val His Gly Ser
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Pro Arg Glu Gly Phe Trp Cys Leu Asn Arg Glu Gln Arg Pro Gly Gln
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Asn Cys Ser Asn Tyr Thr Val Arg Phe Leu Cys Pro Pro Gly Ser Leu
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Arg Arg Asp Thr Glu Arg Ile Trp Ser Pro Trp Ser Pro Trp Ser Lys
145                 150                 155                 160
Cys Ser Ala Ala Cys Gly Gln Thr Gly Val Gln Thr Arg Thr Arg Ile
                165                 170                 175
Cys Leu Ala Glu Met Val Ser Leu Cys Ser Glu Ala Ser Glu Glu Gly
            180                 185                 190
Gln His Cys Met Gly Gln Asp Cys Thr Ala Cys Asp Leu Thr Cys Pro
        195                 200                 205
Met Gly Gln Val Asn Ala Asp Cys Asp Ala Cys Met Cys Gln Asp Phe
    210                 215                 220
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Ala Ala Ile Tyr Leu Leu Thr Lys Thr Pro Lys Leu Leu Thr Gln Thr
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Asp Ser Asp Gly Arg Phe Arg Ile Pro Gly Leu Cys Pro Asp Gly Lys
260 265 270
Ser Ile Leu Lys Ile Thr Lys Val Lys Phe Ala Pro Ile Val Leu Thr
275 280 285
Met Pro Lys Thr Ser Leu Lys Ala Ala Thr Ile Lys Ala Glu Phe Val
290 295 300
Arg Ala Glu Thr Pro Tyr Met Val Met Asn Pro Glu Thr Lys Ala Arg
305 310 315 320
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Arg Pro Asp Lys Tyr Phe Trp Tyr His Asn Asp Thr Leu Leu Asp Pro
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Ser Leu Tyr Lys His Glu Ser Lys Leu Val Leu Arg Lys Leu Gln Gln
355 360 365
His Gln Ala Gly Glu Tyr Phe Cys Lys Ala Gln Ser Asp Ala Gly Ala
370 375 380
Val Lys Ser Lys Val Ala Gln Leu Ile Val Ile Ala Ser Asp Glu Thr
385 390 395 400
Pro Cys Asn Pro Val Pro Glu Ser Tyr Leu Ile Arg Leu Pro His Asp
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Pro Val Lys Thr Cys Ala Gly Gln Gln Asp Asn Gly Ile Arg Cys Arg
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450 455 460
Ile Gln Cys Ser Gly Tyr Thr Leu Pro Thr Lys Val Ala Lys Glu Cys
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Ser Cys Gln Arg Cys Thr Glu Thr Arg Ser Ile Val Arg Gly Arg Val
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Ser Ala Ala Asp Asn Gly Glu Pro Met Arg Phe Gly His Val Tyr Met
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Gly Asn Ser Arg Val Ser Met Thr Gly Tyr Lys Gly Thr Phe Thr Leu
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His Val Pro Gln Asp Thr Glu Arg Leu Val Leu Thr Phe Val Asp Arg
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Leu Gln Lys Phe Val Asn Thr Thr Lys Val Leu Pro Phe Asn Lys Lys
545 550 555 560
Gly Ser Ala Val Phe His Glu Ile Lys Met Leu Cys Arg Lys Glu Pro
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Ile Thr Leu Glu Ala Met Glu Thr Asn Ile Ile Pro Leu Gly Glu Val
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Val Gly Glu Asp Pro Met Ala Glu Leu Glu Ile Pro Ser Arg Ser Phe
595 600 605
Tyr Arg Gln Asn Gly Glu Pro Tyr Ile Gly Lys Val Lys Ala Ser Val
610 615 620
Thr Phe Leu Asp Pro Arg Asn Ile Ser Thr Ala Thr Ala Ala Gln Thr
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Asp Leu Asn Phe Ile Asn Asp Glu Gly Asp Thr Phe Pro Leu Arg Thr
645 650 655
Tyr Gly Met Phe Ser Val Asp Phe Arg Asp Glu Val Thr Ser Glu Pro
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Leu Asn Ala Gly Lys Val Lys Val His Leu Asp Ser Thr Gln Val Lys
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Met Pro Glu His Ile Ser Thr Val Lys Leu Trp Ser Leu Asn Pro Asp
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Phe Val Lys Val Arg Ala Tyr Arg Ser Glu Arg Phe Leu Pro Ser Glu
        755                 760                 765
Gln Ile Gln Gly Val Val Ile Ser Val Ile Asn Leu Glu Pro Arg Thr
    770                 775                 780
Gly Phe Leu Ser Asn Pro Arg Ala Trp Gly Arg Phe Asp Ser Val Ile
785                 790                 795                 800
Thr Gly Pro Asn Gly Ala Cys Val Pro Ala Phe Cys Asp Asp Gln Ser
                805                 810                 815
Pro Asp Ala Tyr Ser Ala Tyr Val Leu Ala Ser Leu Ala Gly Glu Glu
            820                 825                 830
Leu Gln Ala Val Glu Ser Ser Pro Lys Phe Asn Pro Asn Ala Ile Gly
        835                 840                 845
Val Pro Gln Pro Tyr Leu Asn Lys Leu Asn Tyr Arg Arg Thr Asp His
    850                 855                 860
Glu Asp Pro Arg Val Lys Lys Thr Ala Phe Gln Ile Ser Met Ala Lys
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Pro Arg Pro Asn Ser Ala Glu Glu Ser Asn Gly Pro Ile Tyr Ala Phe
                885                 890                 895
Glu Asn Leu Arg Ala Cys Glu Glu Ala Pro Pro Ser Ala Ala His Phe
            900                 905                 910
Arg Phe Tyr Gln Ile Glu Gly Asp Arg Tyr Asp Tyr Asn Thr Val Pro
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Phe Asn Glu Asp Asp Pro Met Ser Trp Thr Glu Asp Tyr Leu Ala Trp
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Trp Pro Lys Pro Met Glu Phe Arg Ala Cys Tyr Ile Lys Val Lys Ile
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Val Gly Pro Leu Glu Val Asn Val Arg Ser Arg Asn Met Gly Gly Thr
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His Arg Arg Thr Val Gly Lys Leu Tyr Gly Ile Arg Asp Val Arg Ser
            980                 985                 990
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Lys Cys Ser Gly Met Leu Tyr Asp Gln Asp Arg Val Asp Arg Thr Leu
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